

1 BEFORE THE PUBLIC SERVICE COMMISSION
2 OF SOUTH CAROLINA

3 COLUMBIA, SOUTH CAROLINA

4 PROCEEDING #18-11715 MARCH 29, 2018 10:39 AM

5 ALLOWABLE EX PARTE BRIEFING - ND 2018-9-E
6 DUKE ENERGY CAROLINAS, LLC
7 AND DUKE ENERGY PROGRESS, LLC

8 TRANSCRIPT OF ALLOWABLE
9 PROCEEDINGS EX PARTE BRIEFING

10 COMMISSIONER MEMBERS PRESENT:

11 SWAIN E. WHITFIELD, CHAIRMAN
12 COMER H. "RANDY" RANDALL, VICE CHAIRMAN
13 JOHN E. "BUTCH" HOWARD
14 ELIZABETH B. "LIB" FLEMING
15 G. O'NEAL HAMILTON
16 ROBERT T. "BOB" BOCKMAN
17 ELLIOTT F. ELAM, JR.

18 ADVISOR TO COMMISSION: Joseph Melchers, Esq.
19 General Counsel

20 STAFF:

21 F. David Butler, Esq., Senior Counsel;
22 James Spearman, Ph.D., Executive Assistant to
23 Commissioners; Josh Minges, Esq., and David W.
24 Stark, III, Esq., Legal Advisory Staff; Douglas K.
25 Pratt, Thomas Ellison, and John Powers, Technical
26 Advisory Staff; Afton Ellison, Clerk's Staff; and
27 Hope Adams and Calvin Woods, Hearing Room
28 Assistants.

29 REPORTED BY: TERRI L. BRUSSEAU, RPR, CRR

30 A. WILLIAM ROBERTS, JR., & ASSOCIATES

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1 LOCATION: Public Service Commission of SC
2 101 Executive Center Drive
3 Columbia, SC

4 PANEL: GARY FREEMAN, Duke Energy
5 General Manager, Renewables Compliance,
6 Origination, and Operations

7 GLEN SNIDER, Duke Energy
8 Director, Resource Planning and
9 Analytics - Carolinas

10 BRETT BREITSCHWERDT, Partner
11 McGuire Woods, LLP

12 FRANK ELLERBE, Member
13 Sowell, Gray, Robinson,
14 Stepp & Lafitte, LLC

15 ALSO PRESENT:

16 Jenny R. Pittman, Esquire,
17 representing the South Carolina Office
18 of Regulatory Staff

19 Rebecca Dulin, Senior Counsel,
20 representing Duke Energy

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1 P R O C E E D I N G S

2 CHAIRMAN WHITFIELD: Please be seated.

3 I will call this allowable ex parte to order and
4 ask our attorney, Mr. Melchers, to read the docket.

5 MR. MELCHERS: Thank you, Mr. Chairman.

6 Commissioners, we are here today
7 pursuant to a Notice of Request for Allowable Ex
8 Parte Communication Briefing. And the date and
9 time of the briefing is today, March 29th, 2018,
10 10:30. The hearing is in the Commission Hearing
11 Room. And the parties requesting the briefing are
12 Duke Energy Carolinas, LLC and Duke Energy
13 Progress, LLC, and they will be discussing
14 developments in solar power production in
15 South Carolina.

16 Thank you, Mr. Chairman.

17 CHAIRMAN WHITFIELD: Thank you,
18 Mr. Melchers.

19 I will now turn it over to the
20 South Carolina Office of Regulatory Staff.
21 Miss Pittman, I'm sorry, I couldn't see you behind
22 the podium back there.

23 MS. PITTMAN: I was hiding from you.

24 CHAIRMAN WHITFIELD: Okay.

25 MS. PITTMAN: Good morning, you all.

1 Thank you, Mr. Chairman. My name is Jenny Pittman
2 and I am a staff attorney for the Office of
3 Regulatory Staff. And I am here today as the
4 designee of our executive director for this ex
5 parte hearing. As ORS representative, it is my
6 duty to certify the record of this proceeding to
7 the chief clerk of the Public Service Commission
8 within the next 72 hours and verify that this
9 briefing was conducted in compliance with
10 provisions of SC Code Section 58-3-260(C).

11 The requirements of that statute are in
12 part that the allowable ex parte be confined to the
13 subject matter which has been noticed, which in
14 this case is -- has been noticed Developments in
15 Solar Power Production in South Carolina. I
16 therefore ask that the presenters, Commissioners
17 and staff all please refrain from discussing any
18 matters not related to this specific topic.

19 Secondly, this statute prohibits any
20 participants, Commissioners or Commission staff
21 from requesting or giving any commitment,
22 prediction or predetermination regarding any action
23 by any Commissioner as to any issue which either is
24 before or is likely to come before the Commission.

25 Third, I would ask that the participants,

1 Commissioners and staff refrain from referencing
2 any reports, articles, statutes or documents that
3 are not included in today's presentation. A copy
4 of any document which is referenced during the
5 briefing today must be provided to me for inclusion
6 in the record which I will certify to Miss Boyd.

7 Finally, everyone in attendance today
8 must read and sign and return the form which you
9 were given at the door when you came in and also
10 sign in as well. The form must be signed by each
11 attendee to certify that the requirements contained
12 in 58-3-260(C) have been complied with at this
13 presentation.

14 Thank you all for your time and
15 attention.

16 Thank you, Mr. Chairman.

17 CHAIRMAN WHITFIELD: Thank you,
18 Miss Pittman. And welcome to this allowable ex
19 parte. And I would ask again that you comply with
20 all the ground rules that Miss Pittman laid out and
21 that everyone present please sign the sheets as she
22 requested. And with that, I will turn it over to
23 Miss Dulin.

24 MS. DULIN: Thank you, Mr. Chairman,
25 members of the Commission.

1 I'm Rebecca Dulin and I am corporate
2 counsel for Duke Energy Carolinas and Duke Energy
3 Progress. We are pleased to be before you today to
4 talk about a topic that is very important to the
5 companies, and that is our experience in solar
6 development.

7 I'll go ahead and introduce to you our
8 panel at this time and they will give you a little
9 more context for their roles at the time when they
10 are speaking. But I have with me today Gary
11 Freeman, who is with Duke Energy, and he is our
12 general manager of renewables compliance,
13 origination, and operations.

14 And after that you will hear from Glen
15 Snider. Glen is an employee of the company, and he
16 is our director of resource planning and analytics
17 for the Carolinas.

18 After Glen, you will hear from Brett
19 Breitschwerdt, and he is an attorney with McGuire
20 Woods.

21 Finally, you will hear from Mr. Frank
22 Ellerbe.

23 And Commissioners, I apologize. I've
24 flipped the names. We will be going in order --
25 from where you're seated, we will begin on the

1 right and go over to the left. So following
2 Mr. Snider will be Mr. Ellerbe, and he is with the
3 firm of Sowell, Gray, Robinson, Stepp & Lafitte.
4 And to complete then the panel will be
5 Mr. Breitschwerdt after Mr. Ellerbe.

6 We appreciate the Commission's
7 willingness to have these four individuals on one
8 panel today. And I have impressed upon them the
9 importance of not speaking over one another and not
10 speaking over the Commissioners, so I would urge my
11 panelists to please keep that in mind.

12 Finally, we have attorneys today who
13 are presenting before you not in their role as
14 attorneys but in their role as subject matter
15 experts, so please keep that in mind as well.

16 And if there's nothing further from the
17 Chairman, then I will call the panel to come
18 forward.

19 CHAIRMAN WHITFIELD: Yes, Miss Dulin,
20 we will let them present. And as you mentioned,
21 out of courtesy to our court reporter, we are going
22 to hold questions until each of them have finished
23 their presentations to try to avoid anyone talking
24 over anyone. And we're going to try to hold
25 questions and let them -- you can start them in

1 whatever order you choose, but we are going to hold
2 questions until they're done.

3 MS. DULIN: That's fine. And thank
4 you, Mr. Chairman. And I apologize for the
5 confusion in the order, but we will begin on your
6 right with Mr. Freeman and make our way to the
7 left. So thank you very much and I'll turn it over
8 to Mr. Freeman at this time.

9 CHAIRMAN WHITFIELD: Thank you,
10 Miss Dulin.

11 MR. FREEMAN: Thank you, Chairman
12 Whitfield, fellow Commissioners, for letting us
13 come before you and share some of our experiences
14 with developing solar power in the state.

15 Again, my name is Gary Freeman. Just
16 to kind of add to my responsibilities, my primary
17 responsibilities are twofold. One is to support
18 and coordinate all the transmission and
19 distribution interconnections to our grid.

20 And then second, our team works with
21 all of our third-party developers to negotiate and
22 execute third-party power purchase agreements with
23 those facilities.

24 So what I want to do, I want to start
25 first with this title slide and just highlight a

1 real neat success that we've had just recently.
2 This is a picture of an elementary stool in Rock
3 Hill. And two weeks ago, Duke Energy helped, as I
4 call it, to flip the switch with students and
5 teachers to commemorate this school's solar system.
6 It's a 230 KW solar installation. It's the largest
7 installation that we've completed so far in the
8 state with any of our schools.

9 Duke provided a 280,000 dollar rebate
10 to the school to support the development of this
11 project. And to date, Duke has contributed over 50
12 million dollars in rebates as part of the
13 South Carolina Act 236 legislation. So I just
14 wanted to kind of highlight a recent success.

15 Next, you heard the developers say when
16 they were here with their ex parte briefing that
17 they plan to invest 5 billion dollars in solar
18 projects. On this slide, I just want to remind the
19 Commission that Duke's made a huge impact in the
20 state as well. The annual economic impact of Duke
21 Energy in the state totals over 6 billion dollars.
22 And that 6 billion dollars represents all goods and
23 services produced that can be attributed both
24 directly and indirectly to Duke Energy in our
25 investments in the state. This impact equates to

1 over 15,000 jobs and almost a billion dollars in
2 labor income that would not otherwise exist. Duke
3 has also provided South Carolina for decades, you
4 know, service. It has a deep history of investment
5 in the state.

6 Recently or ongoing, Duke continues to
7 be recognized as one of the top ten utility
8 companies in promoting economic development. So
9 since 2005, Duke and their economic development
10 team has supported over 12 billion dollars worth of
11 new customer investment in the state. That equates
12 to over 32,000 jobs in the state.

13 If you look over on the right, the
14 point we've highlighted here is that 2017 was an
15 extremely successful year where Duke has helped
16 contribute through economic development 1.6 billion
17 dollars of new investment, which equates to almost
18 2600 new jobs in the state.

19 On this slide you heard developers say
20 that they have experience in 31 states. As you can
21 see, most states still have very little solar
22 development. So Duke utilities operates in six
23 states and has one of the deepest solar experiences
24 in the country.

25 Duke is not only a utility charged with

1 integrating new generation onto the grid, but also
2 Duke is a project developer and owner of dozens of
3 solar projects inside and outside of our service
4 territories.

5 As you can see, North Carolina is where
6 Duke has seen one of the fastest surges in solar
7 development in the country. And as the bullet
8 suggests on the right or the statement on the right
9 suggests South Carolina is also growing rapidly in
10 solar development.

11 As our panel goes through our
12 presentation, I'd like you to keep in mind these
13 four -- or hope you will keep in mind these four
14 considerations.

15 The first point, you know, most states
16 are moving to a market-driven approach for
17 renewable procurement. Competitively procured
18 solar resources ensure consumers are receiving the
19 best possible value for incremental solar
20 development.

21 Second point, South Carolina so far has
22 been very thoughtful in the pace of development and
23 this has had a positive impact on cost to
24 consumers.

25 The third point around reliable

1 service, we all have a responsibility for ensuring
2 reliability is maintained. At Duke, we take
3 this -- the process of interconnecting solar
4 generation or any generation to the grid very
5 seriously. We don't want to be like some other
6 states, for example like Hawaii, where Hawaii, with
7 their extreme solar penetration, they blacked out
8 the island of Oahu twice in recent years from the
9 loss of significant solar.

10 Hawaii is also experiencing some
11 challenges with residential customers where they're
12 experiencing high voltage at the residence.
13 They're working through these issues but this is
14 part of a -- kind of a living and learning kind of
15 theme that I'm going to kind of reinforce several
16 times through my presentation.

17 Even in California recently, California
18 lost a thousand megawatts of solar and California
19 struggled to maintain reliability through that
20 pretty significant event.

21 So we not only look at impacts on our
22 distribution system, we also look at impacts on
23 transmission system. And as you'll hear later in
24 our presentation, we even look at impacts on our
25 generation system as well.

1 And the last point here, we are here to
2 serve our electric consumers and ensure that we're
3 creating sustainable value for our customers. And
4 one of the things we're going to talk about later
5 is the PURPA QF contract and how that if not done
6 correctly can have impacts on consumers and
7 consumer rates.

8 So first I want to talk about
9 interconnections. On this slide I want to show you
10 that Duke has had a lot of success interconnecting
11 the small and medium solar projects. These two
12 graphs show that Duke has connected over 4300 solar
13 projects in the last two years. This represents
14 over 70 megawatts of new solar projects again in
15 the last two years.

16 The graph on the left represents
17 projects that are typically residential and small
18 commercial rooftop solar projects. The blue bar
19 shows projects that have been connected. The
20 yellow bar represents projects that are in the
21 process of being connected.

22 The graph on the right represents
23 medium-sized projects. These are all larger
24 commercial industrial projects that in most cases
25 are owned or operated by the customer and most are

1 net metering facilities. Again here, the blue
2 represents projects connected, yellow are projects
3 that are still in progress, and the dark blue
4 represents projects that have withdrawn. And
5 withdrawals can occur for many different reasons.

6 The reason for our success here is that
7 most of these projects are located in an existing
8 customer location and they have much less of an
9 impact on the grid; and therefore, the studies
10 needed for these projects are much, much less
11 complex.

12 This slide represents the backlog of
13 large-scale projects on the distribution system.
14 You heard from the developers that the backlog and
15 study times have not improved, and we agree.

16 The second bullet points out Duke has
17 been on the leading edge of large-scale solar being
18 connected to the distribution system. Later in our
19 panel we will show just how unique that large-scale
20 projects on distribution system have been compared
21 to all other states. This is the concept of the
22 living laboratory. And what I mean by the living
23 laboratory is we are learning as we go.

24 With my remaining slides, I hope to
25 help you understand the challenges that we've had

1 with these size projects. You can see here by the
2 bars that the surge in project proposals occurred
3 in 2015 in South Carolina, and more precisely the
4 bar represents projects that came into our queue in
5 the September/October time frame. And this was
6 tied to our Act 236 RFP to support Durr compliance.
7 I'll explain on another slide why this late 2015
8 date or dates are important and how these projects
9 have been indirectly impacted by power quality
10 issues that Duke has seen in other areas and also
11 is based on issues and learnings that we've seen
12 from other states.

13 I do want to point you to the yellow,
14 which is good. These are projects that are under
15 construction and we should see the yellow
16 increasing this year. The orange represents our
17 challenge. The dark blue again represents projects
18 that have withdrawn for many reasons. These could
19 be permitting issues, cost, financing, and any
20 number of other issues.

21 Duke has also successfully contracted
22 for the South Carolina Durr Tier 1 program in the
23 DEP service territory and we expect those projects
24 to come on line this year.

25 On this slide I want to highlight three

1 examples that support Duke's living laboratory
2 concept. The first occurred in 2012 with a 4
3 megawatt project connected to an old DEC 44 KB
4 system and almost immediately began seeing voltage
5 issues and customer complaints.

6 So to make a long story short, Duke
7 tried several different solutions but finally
8 committed to upgrade the grid in this location and
9 then spent roughly 11 million dollars to solve the
10 complaint generated from one solar project
11 connected to a very weak part of our system. Our
12 study process at this time just didn't predict this
13 problem.

14 The second example was what I referred
15 to as our real wake-up call. From within a month
16 or so of energizing a large project on
17 distribution, Campbell's Soup began experiencing
18 outages at their plant. The February 2016 date
19 reference is important because this was shortly
20 after we saw the surge in South Carolina and we had
21 not finished any interconnection studies at that
22 time.

23 This was a 20 megawatt solar project
24 connected to a weak rural part of our system and we
25 realized we had gone too far with what we could

1 support on the distribution system. To reinforce
2 this point, we would not connect up a 20 megawatt
3 industrial customer in this location without
4 requiring that connection be made on the
5 transmission system.

6 The third example here is in
7 South Carolina, this is our Olanta substation.
8 I'll describe the situation more on another slide,
9 but the message here is way too much generation
10 proposed in this location. There's roughly eight
11 times more project megawatts proposed at this
12 substation than either the substation or the
13 transmission can accommodate.

14 So on this slide I want to go into a
15 little more detail on Campbell's Soup. First, the
16 interconnection standards provide utilities the
17 flexibility to modify technical standards and study
18 processes as needed to ensure power quality is
19 maintained for any type of interconnection. Our
20 obligation is to ensure the customers in generation
21 live in harmony with each other and this harmony
22 lasts for decades. When we make a commitment to an
23 interconnection, we're assuming that that
24 interconnection is with us for a very, very long
25 time.

1 So shortly after diagnosing the
2 problems at Campbell's Soup, we did step back from
3 our study process to reevaluate the effectiveness
4 of our current study processes. This reevaluation
5 led in June of 2016 to a circuit stiffness review,
6 and with extensive stakeholder participation some
7 modifications were made to this review and we
8 finalized that in late 2016.

9 Duke then worked with developers to
10 implement these changes, which took another six
11 months to integrate into the study process. My
12 point here is that these changes and several other
13 guideline changes have slowed the study process
14 down significantly. But as the third bullet
15 suggests, our goal was to take the time to develop
16 yes solutions for these interconnections.

17 The other key message here is that the
18 North Carolina Utilities Commission did review the
19 service quality issues that Duke was experiencing
20 and the proposed solutions. And as you can see or
21 read, agreed that Duke was taking appropriate steps
22 to ensure electric service to retail customers is
23 not degraded due to operations of newly
24 interconnected generation facilities. It's
25 examples like this that create delays that we think

1 are justified.

2 This is the Olanta substation that I
3 referenced earlier. This is what I refer to as a
4 poster child substation, along with several others
5 that have influenced the need to adopt more
6 prescriptive project-sized guidelines and limit the
7 amount of cumulative generation being connected to
8 a circuit or to the substation. This shows how the
9 lack of interconnection guidelines can create
10 unrealistic expectations for developers. Almost
11 every one of these projects exceeds the entire
12 customer load on the substation. There isn't any
13 way possible that Duke can interconnect this much
14 generation without making significant investments
15 in the grid which need to be paid by someone.

16 But under the interconnection standards
17 and based on Duke's FERC obligations, Duke is
18 required to invest the time necessary to develop
19 solutions for these projects that will clearly not
20 be cost-effective for the project to be
21 constructed.

22 So, for example, we have been working
23 with the first project in line here since the
24 middle of 2016. It's a 15 megawatt project and
25 exceeds the load on the entire substation. And

1 between the developer and Duke, we have not yet
2 found a workable solution for this project. It
3 holds up all other projects in this particular
4 location.

5 Also notice that there are 12 projects
6 on the same circuit represented by the pink line.
7 There are also five projects in the upper right --
8 upper left-hand corner that are about five miles
9 from the substation. These are on the same piece
10 of property, add up to 50 megawatts, and the only
11 possible path for these projects is to build
12 roughly a 5-mile new transmission line over to the
13 right bluish line that represents the existing
14 transmission line. And building a new transmission
15 is always a significant challenge.

16 This slide summarizes our
17 implementation of technical screen and study
18 methods. We are working closely with developers to
19 mitigate the impacts of these new screens as much
20 as possible and are providing sizing options and
21 other solutions to allow projects to interconnect.

22 We have now assembled all these screens
23 and policies into one place. We have now committed
24 to a Carolinas technical stakeholder working group
25 to improve transparency and provide a means for

1 more collaboration. This first meeting is in two
2 weeks and the ORS is invited -- been invited to
3 this meeting.

4 I also want to highlight the last
5 bullet here in reference to EPRI. Duke works
6 closely with EPRI and other industry groups. One
7 consistent message from them is the industry
8 standards, more testing, more field investigations
9 are needed to ensure appropriate integration of
10 renewable generation onto the grid and that is what
11 we are all learning -- that's the point about we
12 are all learning as we go. We also are hearing
13 from several other utilities that have or are
14 having power quality issues similar to the ones
15 that we have experienced.

16 On this slide, these are pictures of
17 what I call interconnections gone wrong. I would
18 like to highlight, you know, this area that we --
19 we are working very closely with developers to
20 ensure proper construction and documentation of
21 solar facilities. These pictures show examples of
22 construction deficiencies and electrical faults
23 that in many cases have resulted in power quality
24 issues impacting other customers.

25 The bottom left represents Campbell's

1 Soup. The bottom right destroyed an entire switch
2 cabinet. Duke now inspects every utility scale
3 project before approving operation and works with
4 developers to repair any of these deficiencies. So
5 as we continue to learn, one of the most concerning
6 things with a recent solar project is that it
7 failed a critical safety test four different times.
8 It's a new inverter manufacturer with a new
9 technology. So it's not a developer issue. We are
10 all working together to try and figure out what is
11 going wrong at this particular facility.

12 My last slide introduces the House Bill
13 589 Competitive Procurement Program. You heard the
14 developers comment on this in their presentation.
15 I will leave you with two comments here.

16 First, we all hope that South Carolina
17 projects will participate in the program and will
18 be successful in winning bids.

19 Second, I want to reinforce that Duke
20 will ensure that other South Carolina projects will
21 not be negatively impacted by this program. Our
22 panel will elaborate on this program later in our
23 presentation.

24 And that concludes my presentation, so
25 thank you very much. And I will now turn this over

1 to Glen Snider.

2 MR. SNIDER: Good morning, Chairman,
3 Mr. Commissioners, Miss Commissioner. Appreciate
4 the opportunity to appear before you today.

5 As Rebecca said, I am the director of
6 integrated resource planning and analytics.
7 Normally I appear before you on IRP-related issues,
8 but in my role I also have responsibility for the
9 development of our avoided cost rates and have
10 appeared as the evaluation witness in IRP and
11 avoided cost-related matters.

12 I'd like to talk to you today a little
13 bit about some of the PURPA implementation that
14 we've experienced over time and a lot of discussion
15 that's been taking place around the appropriate
16 implementation of QF rates and other
17 economic-related impacts of solar.

18 And starting with PURPA, the original
19 intent in PURPA was to provide a pathway for
20 independent power producers to put power onto
21 utilities grids, and that -- that private sector
22 pathway through PURPA had one central theme, and
23 that was to have -- -

24 CHAIRMAN WHITFIELD: Mr. Snider --

25 MR. SNIDER: Yes, sir.

1 CHAIRMAN WHITFIELD: -- I'm sorry.
2 I've just been informed we need to ask you to just
3 pause for a technical difficulty just for a minute.

4 MR. SNIDER: Certainly.

5 MR. MELCHERS: Trying to make sure
6 you've got the right materials for the job. We
7 think we probably got the day before yesterday this
8 PowerPoint up without the final tweaks that you all
9 did, so we're just going to have somebody switch it
10 out right now unless you've already seen --

11 MS. DULIN: Just to clarify,
12 Mr. Melchers, the version that was sent to
13 Miss Wheat earlier yesterday and not later
14 yesterday, we're fine with that.

15 MR. MELCHERS: Okay. Let me verify
16 that that's the case.

17 MS. DULIN: If your preference is to
18 switch it over, then we're happy to do that.

19 MS. WHEAT: I did not -- I only got one
20 from you. So that very first one that you sent is
21 the one I believe that's here.

22 CHAIRMAN WHITFIELD: Miss Dulin, let's
23 take about a five-minute recess.

24 MS. WHEAT: I'm sorry.

25 MS. DULIN: That's fine. Thank you.

1 (A recess transpired.)

2 CHAIRMAN WHITFIELD: I've been informed
3 that we're okay now. So, Mr. Snider, I apologize
4 for stopping you and please continue with your
5 presentation.

6 MR. SNIDER: Thank you, Chairman
7 Whitfield.

8 So as I was saying, PURPA, different
9 states implement PURPA rates using different
10 analytic methods and it can get, you know, very
11 confusing when you start hearing about peaker
12 method and differential revenue requirements and
13 all these complex methods for developing a PURPA
14 rate. But at the heart of them all is a very basic
15 concept that's an indifference principle.

16 It says when you put qualifying
17 facilities onto a grid, the consumer should be
18 indifferent from an economic perspective of
19 purchasing QF power versus the alternative it would
20 have purchased from a native utility had it just
21 bought power from the generators that the utility
22 has. So this indifference principle is at the
23 heart of all of the methods for evaluating PURPA
24 rates. And we'll talk more about that later.

25 And then finally, it needs to be

1 recognized that maybe 20 or 30 years ago, QF's,
2 that was the primary pathway for QF's to be
3 integrated into a power portfolio. Today as we've
4 seen, there are multiple other pathways, as
5 Mr. Freeman referenced Act 236, various renewable
6 portfolio standards. So there's other pathways
7 other than just QF rates to allow renewables to be
8 integrated into a power system.

9 There has been a lot of discussion
10 about the need to improve and update our QF rates.
11 We agree that they need to be updated. The company
12 is working and we'll be coming forward this year
13 with updated rates. The current rates we believe
14 today are above the value that's actually being
15 created, and so therefore that misalignment
16 requires that new rates be filed and we're working
17 towards that.

18 One of the other issues we think about
19 with -- and the reason it's so important to have
20 updated QF rates is that there is no volumetric
21 limit on the amount of QF's that take service under
22 a QF rate. So once that rate is being offered, as
23 many QF's that line up and ask to be connected at
24 that rate and then go through the process can be
25 connected. Unlike a utility that comes forth, they

1 say, here's a power plant, here's the size of it,
2 we're going to get a CT scan for this finite amount
3 of power. QF can come in any quantity as we saw in
4 the original graph with all the bubbles.

5 And why is that so important? Well, as
6 penetration increases of QF's, the incremental
7 value of the next one on line declines. And that's
8 true of any resource. The more you add of any one
9 resource at any point in time, the less valuable
10 the next increment of that resource becomes.
11 There's only a finite need for any type of
12 resource, whether it's a peaker or a combined cycle
13 or wind or solar or biomass. The more that's
14 added, the less the next increments work. And so
15 the amount you get and the pace that Mr. Freeman
16 spoke about earlier is very important.

17 The other concept that gets spoken
18 about often is the term of QF rates, how long,
19 what's the right size of a QF rate. And I've heard
20 discussion that the longer, the better, because it
21 insulates customers from risk. We're going to talk
22 more about that in the next couple slides, but I
23 would have to disagree with that comment.

24 When you fix a price out into the
25 future, the longer that price is fixed, the more

1 uncertainty you have of what the market will really
2 look like 10, 15, 20 years down the road, so the
3 risk that it was accurately priced on Day 1 becomes
4 greater. We've all seen uncertainty bands. And
5 the further you go out in time, the greater the
6 risk there is.

7 That often leads to discussions around
8 what is the right term in terms of a contract or a
9 QF contract, especially within the construct of a
10 PURPA rate. And the longer the term, if you think
11 about it, what QF's are looking to do is to secure
12 their -- their revenue stream against their cost
13 structure, but then that transfers risk from the
14 equity and the debt over to the consumer who's
15 paying for it, so they are obligating a fixed price
16 into the future irrespective of the value created
17 at that point in the future.

18 So many -- you know, many of those
19 states are starting to recognize this, especially
20 in the southeast what you see within the context of
21 QF rates is while there is an obligation to take QF
22 power and there's an ever green rate in place,
23 prices are only fixed in states like Tennessee,
24 Alabama, Mississippi for one year and then the
25 following year they get reset based on the market

1 at that time.

2 In North Carolina, we used to have
3 15-year rates. They've gone now down to 10-year
4 rates for QF's, 1 megawatt and under. And also,
5 for anything above 1 megawatt in a negotiated QF,
6 so from 1 megawatt up to 80 megawatts, which is a
7 definition for qualifying facilities, the term is
8 limited to five years.

9 Currently South Carolina has ten years
10 for its QF's that are two megawatts and under for
11 us here in -- or at DEC and DEP. And that's in
12 line right now with what we're doing in North
13 Carolina, which is also a 10-year term except the
14 differences were 1 megawatt and under for that.

15 There's also talk about risk and who
16 wears what risk when it comes to what happens at
17 the end of the term of a contract. I've heard
18 discussions about developers wear all the risk at
19 the end of a term. And again, I would tend to
20 disagree. They also have a lot of upside. If you
21 think about the difference in how utility assets
22 are recovered in the context of putting assets into
23 the energy portfolio, they are limited to a
24 regulated return on their nondepreciated book
25 balance.

1 And so if we put an asset in the rate
2 base and ten years from now it's 70 percent
3 depreciated, that 30 percent that's left is all
4 that goes into rates. A developer who is not
5 subject to cost plus ratemaking is able to put an
6 asset into rates -- into service and at the end of
7 a 5 or a 10-year contract reestablish or continue
8 to establish their rights as a QF and can get
9 garner well above whatever the book value is on
10 those assets. That doesn't -- the book value of
11 the assets never comes into play in a PURPA QF
12 contract. It's simply the utilities of what it
13 cost.

14 So there is definitely a difference
15 between the two, but it doesn't mean that they bear
16 all the risk. They also bear significant upside
17 that then becomes a cost for consumers at that
18 point in the future.

19 So again, this is -- I'll leave this as
20 a -- without -- in the interest of time without
21 going through all of these, but there are a lot of
22 changes happening in the industry. We're seeing --
23 you know, moving away where there are some that
24 argue we need to expand and make PURPA much more
25 broad. That's not the industry trend. It's moving

1 towards shorter-term contracts. This is especially
2 true in a declining cost structure. We talked
3 about the volumetric; the more you add, the less
4 the next increment is worth.

5 Well, if we truly believe solar costs
6 are declining, and we do, we've seen that, that's
7 good for all stakeholders, but you want to think
8 about that environment. If costs are going to be
9 30 percent lower five years from now, how does that
10 affect your thinking on pace of solar adoption
11 today if you recognize there's a finite means for
12 solar and you know you're going to have cheaper
13 solar costs three, four, five years down the road,
14 you want to be careful into how you incent the
15 development at a given point in time so that you
16 have ability to take advantage of lower costs in
17 the future.

18 We do think, you know, it's a very
19 important resource, it's a growing resource in our
20 mix. And again, if it's done at the right pace
21 that matches the economics and the need and as
22 Mr. Freeman talked about that we do it in a
23 thoughtful manner from integrating with the T and D
24 grid, but also in -- we need to think about it in
25 the way that it also affects our generation fleet

1 and how it gets integrated in with the rest of the
2 generation fleet.

3 A lot of the challenges that are
4 currently out there with solar, there's promising
5 technology in batteries and energy storage that can
6 help to alleviate some of those problems. And Duke
7 is committed to pilot these storage projects.

8 You may have read about a micro grid
9 project that we're looking at right now in Anderson
10 County combining solar with storage to provide a
11 more reliable solution for the civic center there
12 in Anderson County. So that project is in its
13 early stages and still under development, but
14 that's an example of a commitment to it.

15 But I caution that to say we are still
16 in the early stages and the benefits of storage
17 really do come in when that storage can be operated
18 in realtime to respond to the events of the moment.
19 And when you think about pairing storage behind a
20 PURPA contract that's just a 20-year fixed price
21 contract where the utility does not have realtime
22 dispatchability of that storage asset, that storage
23 is simply going to be used to move off peak power
24 to on peak as the prices were set when that
25 contract was originally put into place and will

1 have limited ability to be responsive to realtime
2 conditions.

3 So how the storage gets put into
4 service, the pace at which it gets put in, the
5 mechanisms by which storage gets put in are very
6 important, so it's difficult to just blanket --
7 make a blanket statement around energy storage.

8 We agree with many stakeholders when we
9 say that there are need for updates and we think
10 that that's exactly correct and that having a
11 stakeholder involvement is important in that
12 process. We believe that that process should come
13 through this regulatory body in a way that all
14 stakeholders have a say into it to ensure some of
15 the issues Mr. Freeman talked about in terms of
16 pace, reliability and economic fairness to all
17 stakeholders are considered adequately.

18 So if we think, you know, a little bit
19 for a minute beyond just PURPA rates and how we
20 implement PURPA rates, Mr. Freeman talked about the
21 impacts of solar on the transmission and
22 distribution system. I want to take just a couple
23 of moments to talk about integrating it into our
24 existing generation fleet.

25 You know, as an IRP director, I look at

1 how our fleet of generation operates today and will
2 operate into the future. And it's important that
3 we think about integrating solar into an existing
4 fleet of generators. We have nuclear, we have
5 hydro, we have pump storage, gas turbines,
6 gas-combined cycles. You integrate significant
7 amounts of solar into that, that changes how those
8 generators are going to operate today and into the
9 future and being very thoughtful about that is
10 important.

11 We have to deal with that intermittency
12 on the generation side just like the transmission
13 and distribution side. And when you have large
14 amounts of solar coming onto a system, there are
15 times when you get what we call operationally
16 excess energy. So our nuclear plants run for many
17 years around the clock very reliably. We have one
18 of the best operating nuclear fleets in the
19 country, we run at a very high availability rate.

20 But in the spring and in the fall when
21 solar is at its best output, we actually get the
22 highest level of solar output. In the shoulder
23 months, it's when the -- you don't have degradation
24 on the panels, it's not hazy, it's very clear and
25 sunny, but there are times during the spring and

1 the fall when loads are very light.

2 So when you have very light load and
3 you have a lot of solar coming onto the system, you
4 have to back down existing generation to make room
5 for that solar. If you get too much solar, you
6 start getting solar that we can no longer
7 accommodate onto the grid and we have to ship that
8 off system.

9 And so you've seen that in other parts
10 of the country. You hear terms of excess energy or
11 dump energy or in PJM terms, like negative LMP's
12 where you're actually paying to produce the power
13 so that others will back down. So those are the
14 types of things that we need to be aware of and
15 mindful of from an IRP perspective.

16 And then we also in realtime need to
17 make sure we're compliant with all NERC balancing
18 standards. So NERC requires our system operators
19 to operate the system in realtime in a manner that
20 ensures grid stability. So things like frequency,
21 ramp rate, operating reserves, are all impacted as
22 the level of solar grows onto the system.

23 And so one of the considerations both
24 physically and financially is ensuring that as that
25 amount of solar comes on that the generation fleet

1 is able to respond to those ramp rates, to those
2 minimum load conditions and to that intermittency
3 and that we have sufficient operating reserves to
4 be able to do that.

5 The economic side of that is a term
6 that you may have heard called ancillary services
7 or generation ancillary services. And that just
8 refers to how much of that capability do you have
9 and what does it cost to provide incremental more
10 amounts of the ancillary services such as balancing
11 up, balancing down, or frequency. And so
12 determining that in an appropriate manner is -- and
13 getting that correct in the pricing of a QF rate is
14 very important.

15 And just as maybe a last illustration
16 on this point, you know, this is a pretty rough
17 slide there, but it's a -- you know, we've heard of
18 the duck curve or many have heard of the duck curve
19 and I just thought I would illustrate. That's
20 something that came off of California. But you can
21 see with the amount of solar coming on the
22 Carolinas, we have our own version of this.

23 And what this shows is, you know, if
24 you go back just five or six years ago, that top
25 blue line represents 2012. And so if you think

1 about having to -- and that's going throughout the
2 day what kind of load do I serve.

3 And so in California back in 2012,
4 generators would follow that blue line ramping up a
5 little in the afternoon, down a little in the early
6 evening, and then back up in the late evening as
7 people came home from work.

8 Now fast forward six years and I think
9 the yellow line actually projects 2020, so maybe
10 eight years forward from 2012 what the new gen --
11 or what the new load shape is that the generation
12 has to follow is that yellow line. So instead of
13 sort of being this gentle ramping up and down, when
14 solar comes on in the middle of the day, existing
15 generation has to back down very quickly to follow
16 down the yellow line to allow room for the solar to
17 come on, that as the sun passes the apex starts
18 going down, the solar output declines and you see
19 solar ramping up, and that ramp up is very quick.

20 I just came from a conference where now
21 there's a new version of this that has a little
22 point on top of the duck curve from all the Tesla
23 owners in California that come home and plug their
24 car in to a high-charged port in their garage at
25 7:00 or 8:00 at night and it creates a quick spike

1 in demand. And due to quick charging, it comes
2 off, so now they call it the uniform curve because
3 you get a little spike. And they say as
4 penetration of Tesla increases, the horn on the
5 unicorn is going to get bigger.

6 So this is just an example of if you
7 don't know when you set long-term rates, you know,
8 what you might be serving 5, 10, 15, 20 years down
9 the road while you're locking into something today.
10 So that's just an example of some of the challenges
11 here in the Carolinas.

12 We also have our winter version of
13 that. We are a winter-peaking, winter-planning
14 utility at DEP and DEC, and so we have early
15 morning peaks and late afternoon peaks. And the
16 version of that sort of looks like two peaks, but
17 then the trough in the middle gets much steeper and
18 that mid load gets much lower as you integrate more
19 and more solar.

20 So just accommodating all of that with
21 respect to both the physical reliability as well as
22 the economic certainty and fairness to customers
23 are two things we really think need to be addressed
24 when we think about either, you know, PURPA
25 implementation of QF rates or competitively

1 procured solar, these are the type of issues that
2 need to be addressed.

3 So with that, I will end my portion of
4 the presentation and hand it over to Mr. Ellerbe.

5 MR. ELLERBE: Thank you, Glen. Thank
6 you, Mr. Chairman, members of the Commission.

7 Frank Ellerbe; Sowell, Gray, Robinson
8 law firm.

9 I'm going to talk to you about a couple
10 of pieces of legislation that are pending. We
11 would not ordinarily come and appear before you to
12 talk about legislation, but the solar developers
13 came a couple of weeks ago and talked about this
14 legislation and explained to you all why they were
15 supporting it.

16 And we are going to explain -- my job
17 is to explain why we're opposing that legislation,
18 what concerns we have about it. I only have four
19 slides to talk about, but I'm going to talk about
20 them -- I'm going to take them out of order. So if
21 you all will bear with me, I will walk you through
22 it.

23 The first bill, they're companion
24 bills, but most activity has been in the Senate
25 Bill 890. And this is a bill that the solar

1 developers are supporting and it would adopt by
2 statute a number of elements of the PURPA contract.
3 I won't go into the details that it would -- you'd
4 have a statutory provision on the length of solar
5 PPA's, the size of the standard offer, other issues
6 would all be put in the statute and could only be
7 changes by amending the statute.

8 All of these things are things -- are
9 issues that this Commission has the authority and
10 discretion to deal with today, and we think that is
11 absolutely necessary. And the arguments and the
12 presentations by Gary and Glen this morning have
13 reinforced the importance of having flexibility to
14 deal with these issues and to deal with changing
15 circumstances, to deal with the things that we --
16 that we're learning.

17 And so we think that it's important
18 that this Commission retain its jurisdiction to
19 deal with those issues. And so we don't think 890
20 is a good piece of legislation, we don't think it's
21 in the public interest, and the company is opposing
22 it.

23 The other bill that -- there we go.
24 The other one I wanted to talk about is 987. This
25 bill and its house companion bill proposes a green

1 source or renewable energy rider in the statute.
2 The company supports the idea of a green source
3 rider. We believe you have the authority today to
4 approve a tariff or a rider that would address
5 these issues. And we think you all are in a better
6 position to address those issues again.

7 As I've just made the argument or made
8 the point on 890, same thing applies here. The
9 Commission is in a better position to balance the
10 interests of those customers that want to be able
11 to say we get all of our power from renewable
12 energy or green sources. Those customers -- we can
13 find a way to address that issue for those
14 customers, but we have to make sure that's done in
15 a way that doesn't disadvantage or harm our general
16 body of customers.

17 This is -- this slide, which is 25 --
18 I'm now going backwards. I just talked about 26.
19 This is 25. This is what the company has done in
20 other jurisdictions. It's allowed customers to
21 purchase green sourced energy and allowed for
22 specific type of energy. That customer pays any
23 cost above avoided cost, which is a way of
24 protecting the general body of customers.

25 This is being done in some other

1 jurisdictions, has not -- the company has not found
2 a customer who wants to do this in South Carolina,
3 but we are open to it, looking for customers who
4 want to do it.

5 I think you all have approved an
6 arrangement like that for Boeing with SCE&G a
7 couple years ago, and Duke Energy is -- is willing
8 to do that. We think we can do it under the
9 existing statutory structure and that we don't need
10 a bill to do that.

11 This -- the last slide I'll talk about
12 and what -- what we -- it occurred to us these
13 bills that the solar developers are supporting, 890
14 and 987, are bills that were introduced without
15 consultation among the industry, and contrasting --
16 we want to contrast that for you all to what
17 happened with Act 236 in 2014.

18 Act 236 at the time it was introduced
19 had been worked on by stakeholders, utilities,
20 solar developers, environmental groups, customer
21 groups, the office of regulatory staff. There had
22 been a large collaborative effort among all the
23 stakeholders working to find compromised solutions
24 on issues.

25 That group of stakeholders stayed

1 together throughout the legislative process in 2014
2 and the bill -- and you all know part of the point
3 of that bill was again balancing the interest of
4 solar developers and people that wanted to get into
5 the solar business and bring those jobs to
6 South Carolina, as they like to talk about, but the
7 general assembly was insistent that we balance
8 those interests with the interests of the general
9 body of ratepayers and that we not -- that we limit
10 any subsidy by general ratepayers to the customers
11 who wanted to have solar. Act 236 has been a
12 success. We have seen rapid solar development in
13 South Carolina. We've seen minimal adverse effects
14 on the general body of customers.

15 We think that's the kind of process
16 that ought to be followed in South Carolina for
17 doing new things. The company is certainly open to
18 working collaboratively with the solar developers
19 as the area indicated earlier and is continuing to
20 do that, but we don't think this go-it-alone
21 approach that they followed this year of
22 introducing these bills is the right way to go
23 about it. And we're much more likely to have a
24 successful legislative effort, regulatory effort,
25 if it's a result of all of the stakeholders getting

1 together.

2 I'm going to turn matters over now to
3 Brett Breitschwerdt, who has been -- who is a North
4 Carolina lawyer representing the company in
5 PURPA-related issues in North Carolina, and he is
6 going to tell you about the experiences there which
7 we think are very relevant to what could be
8 happening in South Carolina. Thank you.

9 MR. BREITSCHWERDT: Thank you, Frank.
10 Chairman and Commissioners, Brett
11 Breitschwerdt with the law firm of McGuire Woods in
12 Raleigh, North Carolina.

13 A pleasure to be here today. This is
14 my first trip to Columbia to be with you all not
15 appearing as an attorney for the company,
16 obviously, but -- I'm licensed in the state, but
17 I'm here to talk about PURPA issues and the
18 significant experience, as Mr. Freeman mentioned at
19 the beginning of his remarks, that other states
20 where the facilities are regulated have had with
21 PURPA.

22 So I'm going to do two things in my
23 brief time with you all this morning. I'm going to
24 start out by talking about PURPA in North Carolina
25 and then talk a little bit more about the House

1 Bill 589 legislation that North Carolina enacted to
2 involve PURPA, reform PURPA, as well as to
3 establish a more competitive process to procure a
4 significant amount of solar for the benefit of
5 customers in both North Carolina and
6 South Carolina.

7 So I think Mr. Ellerbe explained the
8 importance of making sure the Commission is taking
9 thoughtful approaches to implementing PURPA and
10 that the Senate Bill 890 is perhaps not the best
11 strategy and something the company doesn't support.

12 And I think part of the reason why I'm
13 here is to emphasize for the Commission that what's
14 in Senate Bill 890 would do would be to effectively
15 legislate in South Carolina be the approach to
16 implementing a purpose to enter an offer that had
17 been in existence for the last decade in North
18 Carolina and has now been effectively rejected by
19 the Commission and rejected by the legislature
20 through the House Bill 589 reform.

21 So I want to start out with talking
22 about what is a standard offer. So under the PURPA
23 regulatory framework that exists, there's kind of a
24 concept of cooperative federalism where PURPA
25 establishes regulations and the state Commissions

1 then implement the statute enacted by Congress
2 consistent with those regulations, so that's for --
3 for this Commission to implement in South Carolina
4 and to determine a standard offer under those
5 regulations is for the utilities to present a
6 tariff to you all to approve.

7 And the Duke utilities current standard
8 offer tariff is a 2 megawatt tariff for a 10-year
9 term. Now, what -- that house -- excuse me, Senate
10 Bill 890 would mandate by law is a 5-year, 5
11 megawatt -- excuse me, 15-year term standard offer
12 for QF's. And as Mr. Snider said earlier, they
13 could -- there's no cap or limit on the number of
14 projects that could take service under that tariff.
15 And so for the last decade, North Carolina has
16 offered a similar standard offer tariff for 5
17 megawatt projects and there's been a significant
18 amount of uncontrolled development in the state.
19 So I wanted to emphasize kind of the chronology
20 here, just that the pace at which the solar was
21 developed under this 5 megawatt standard tariff.

22 So during 2011 there was a reasonable
23 amount of small solar developed in North Carolina
24 installed on the Duke in-progress systems, but
25 there was no utility scale solar to speak of, at

1 least not significant.

2 And within a 4-year period by the end
3 of 2015, the Energy Information Administration had
4 reported that North Carolina had more PURPA solar
5 in the US than any other state in the country and
6 the amount of solar installed had grown to -- by
7 over a thousand megawatts to over 1150 megawatts,
8 which is a significant growth. I mean, that's a
9 nuclear plant essentially in a very short period of
10 time to be installed on utility systems in the
11 state.

12 Fast forward two years and the North
13 Carolina Commission was evaluating its PURPA
14 implementation policies which included its standard
15 offer program 5 megawatt 15-year term. And the
16 Commission emphasized that these existing policies
17 had created a distorted marketplace for solar
18 projects resulting in artificially high costs being
19 passed on to customers in the state. And so the
20 Commission did in parallel with House Bill 589,
21 being inactive reform in a number of significant
22 ways, the way PURPA is implemented in
23 North Carolina which are not consistent with what's
24 in Bill 890 would mandate for South Carolina.

25 I think I would just note that I was

1 not here at the developer's ex parte, but it's
2 interesting the Cypress Creek organization is a
3 large developer who has been very active in North
4 Carolina and they were very involved in the process
5 of Act 236, the stakeholder process that came to
6 House Bill 589 being enacted. So go-it-alone
7 process that's happening here in South Carolina on
8 that piece of legislation for purposes of House
9 Bill 589, they were a participant and went in a
10 very different direction as part of the broader
11 stakeholder process than what Senate Bill 890 is
12 proposing to mandate for South Carolina.

13 The one additional point I'd like to
14 flag is that reform is not just happening in North
15 Carolina in terms of implementing PURPA. NARUC in
16 December of last year submitted a letter to FERC.
17 There has been a proceeding going on at FERC for
18 some time asking the Commission to make changes to
19 its PURPA regulations to more effectively integrate
20 renewables into the grid and really called for two
21 important reforms that I want to emphasize.

22 The first was similar to House Bill
23 589, which I'll speak about in a minute, moving
24 from traditional administratively established
25 avoided cost, which Mr. Snider spoke to a few

1 moments ago, to a competitive framework where you
2 are establishing a market price for renewables.

3 The second one that they addressed in
4 this letter to FERC was the need to address
5 regulatory arbitrage. And that was their language,
6 not mine, but I think it is an important term when
7 you look at the chart at the bottom of the page
8 which shows the number of 4 to 5 megawatt solar
9 projects in North Carolina compared to every other
10 state in the country. Well, this is the top ten
11 states, so there are no 4 or 5 megawatt projects
12 installed in any other -- or less than three in the
13 other 40 states.

14 So I think what's important to
15 emphasize here is, you know, if you look at what a
16 5 megawatt 15-year term would mean for South
17 Carolina, if it develops like North Carolina did
18 over the last approximately five years before they
19 reformed their implementation of PURPA, that's 282
20 projects, approximately 1400 megawatts, when the
21 next largest amount of development in that size
22 category was California with only 28 projects were
23 approximately 140 megawatts, so significant
24 difference. And it's really been driven by that
25 unique regulatory policy in North Carolina.

1 So with that I'll turn to the next
2 slide, which is what does the reform mean and how
3 is it being implemented in North Carolina. So the
4 first significant piece is the standard offer
5 reform or the PURPA reform, Part 1 legislation.
6 The standard offer was revised from the 5 megawatt
7 15-year term to a 1 megawatt 10-year term. And
8 importantly, after a hundred megawatts or a hundred
9 projects are installed on the utility system, that
10 would drop down to 100 KW, which is the floor of
11 what the PURPA regulations initially called for
12 when that standard offer requirement was
13 established to allow small projects to be
14 developed.

15 Part 1 also provides for every project
16 above a megawatt a negotiated 5-year term power
17 purchase agreement that the utility would enter
18 into with QF's from 1 megawatt all the way up to 80
19 megawatts. And that's the same policy that the
20 companies have been implementing here in
21 South Carolina as well, which is consistent with
22 this North Carolina legislation.

23 And finally, this is something that is
24 in Mr. Snider's wheelhouse, but the legislation
25 provided that capacity payments would only be

1 provided as part of a avoided cost rate if the
2 utility's IRP identified a need. So if the utility
3 doesn't have a need for new generation in the first
4 three years of a 10-year contract, the customer's
5 not going to be paying for that generation. It's
6 not needed from a QF because the indifference
7 principle Mr. Snider spoke about suggests that you
8 would only pay for capacity when you have a need.

9 House Bill 589 established a number of
10 other programs, the CPRE program or competitive
11 renewable energy procurement program (sic), which
12 I'll speak to in more detail in a moment, is a
13 significant new commitment, 2600 megawatts of new
14 renewable industry procurement which would be
15 procured in both North Carolina and South Carolina
16 potentially based on the least cost reliable
17 resources, whether QF or utility unit resources,
18 they would be able to deliver this energy to the
19 system.

20 There is a green source rider program
21 similar to what Mr. Ellerbe spoke about that the
22 company is considering for South Carolina, and it
23 allows larger commercial industrial customers 5
24 megawatts in size or a commercial customer that can
25 aggregate to 5 megawatts in size to procure a

1 hundred percent green energy.

2 And importantly, the program requires
3 nonparticipating customers to be held neutral,
4 which is to ensure that they're not -- their rates
5 aren't going up because another customer wants
6 green energy. So a very important consideration in
7 designing a program like that.

8 The other three kind of pieces of the
9 program which I'll just touch on briefly were solar
10 leasing, solar rebates and community solar, which
11 are similar to the Act 236 programs here in
12 South Carolina. And those are all under
13 development and being put before the Commission in
14 North Carolina in the near future to be approved.

15 So finally, I want to spend a little
16 bit of time talking with you all about the CPRE
17 program, which is the Competitive Procurement of
18 Renewable Energy Program. So as I've mentioned,
19 this is a very significant effort that the state is
20 undertaking in conjunction with performing PURPA to
21 continue to have a path forward for new renewable
22 energy resources to be brought onto the grid in a
23 more reliable and affordable fashion for customers.

24 So it's an alternative RPF program
25 qualifying facilities up to 80 megawatts in size

1 can bid into this RFP or they can elect to take the
2 5-year standard offer -- sorry, negotiated offer
3 power purchase agreement that is still available
4 under North Carolina's implementation of PURPA.

5 As Mr. Freeman mentioned earlier,
6 South Carolina projects are eligible to compete and
7 the company's hopeful that they'll be
8 cost-effective projects in South Carolina that can
9 deliver energy into this program and win the
10 solicitation, importantly to ensure the program is
11 cost-effective for customers, the cost of the power
12 purchase contracts would be capped at utilities
13 avoiding cost.

14 So any RFP winner coming out of this
15 program will by definition be less expensive than a
16 longer term -- or equivalently termed PURPA
17 contract, so the contracts are going to be a
18 20-year term initially based on the way the
19 legislation was written.

20 The program allows the Duke utilities
21 to allocate between progress and Duke Energy
22 Carolina service territory, the amount of
23 generation to be procured as well as to identify
24 locations that will be more efficient to integrate
25 additional generation, which is important as more

1 and more areas on the grid become constrained and
2 there would need to be network updates in terms of
3 transmission lines to be constructed or other
4 improvements to the grid, integrate additional
5 solar.

6 So the framework of the program allows
7 the utilities to identify for developers where on
8 the grid be most efficient and effective to deliver
9 this -- to construct this additional solar so it
10 can be delivered to the grid most cost effectively.

11 Finally, there's two incremental
12 benefits over the traditional PURPA framework for
13 the way the power purchase agreements under this
14 program are designed to provide Duke operational
15 flexibility.

16 You heard Mr. Snider speak to the
17 challenges of ramping and he showed you the duck
18 curve and those increasing challenges that Duke
19 Energy projects specifically are experiencing as
20 additional incremental solar comes on line.

21 Under the CPRE program, the utility has
22 the rights under this power purchase contract to
23 dispatch and control the third-party assets in the
24 same way that they can control its utility-owned
25 assets, which allows them to be much more

1 efficiently used for the beneficial customers.

2 And finally, the renewable energy
3 attributes associated with these resources are
4 contracted for by the utility on behalf of
5 customers, which is another difference from PURPA.
6 Under the PURPA framework, the developer QF owner
7 would retain the renewable energy attributes and
8 sell them as another revenue stream to someone and
9 they wouldn't necessarily transfer to the utility
10 and to customers.

11 So this allows these REC's, that you
12 might have heard that term used before, to be
13 transferred to utility to then be allocated amongst
14 retail and wholesale customers. So the energy
15 delivered by this program will be green energy
16 that's delivered to customers in both North
17 Carolina, South Carolina, and the wholesale
18 customers served by Duke Energy Carolinas or Duke
19 Energy Progress.

20 The first RFP planned under the program
21 is planned for later this summer, Q2 likely this
22 year, and then there will be four -- or that will
23 be the first of four tranches or RFP solicitations
24 planned over the next 45 months to procure this
25 2600 megawatts of solar, so significant new

1 program.

2 And with that, I'll close and
3 Mr. Snider is going to have some final remarks.

4 MR. SNIDER: Thank you, Brett.

5 So in conclusion, you know, the panel
6 talked about a lot of issues today, you know, but
7 to sort of sum it up around there's physical
8 considerations from interconnection transmission
9 distribution as well as generation impacts and
10 that's why I wanted to be very thoughtful about how
11 we implement solar. There are financial
12 implications in terms of risk and financial risk
13 and who bears that financial risk.

14 And then as Mr. Ellerbe and
15 Mr. Breitschwerdt talked about, there are
16 regulatory and policy considerations. So when we
17 take that in total, we really want to again just
18 sort of end with where we started and say, you
19 know, there are multiple paths forward for
20 integrating renewables onto the grid and I think
21 careful consideration needs to be given to what's
22 the best path.

23 We certainly believe that in this
24 environment with declining costs that a
25 competitively procured program has benefits over

1 long-term fixed price rates. That pace of
2 adoption, again as Mr. Breitschwerdt pointed out,
3 our competitive procurement plans for DEC and DEP
4 are spread out over four years. It's not an
5 all-at-once type of program, and pacing that across
6 time and allowing the market to evolve is
7 important.

8 Ensuring reliable electric service,
9 that means both at the transmission and
10 distribution as well as at the generator, is very
11 important; so going too fast too quick, we've seen
12 it result in playing catchup. So the pace is very
13 important, to do that at the right pace, and then
14 assessing and mitigating the economic risks to
15 consumers.

16 Again, I've heard stakeholders say that
17 there are no risks to consumers and that has not
18 borne out to be the case. There are certainly
19 economic risks that need to be considered. The
20 longer the term of any fixed price QF contract that
21 doesn't involve competitive procurement, but is
22 simply a rate based on market conditions at a given
23 point in time, the greater the risk is that when
24 you get to the -- towards the end of that, that
25 those assumptions were wrong and that could go

1 either way for consumers.

2 And then we spoke a lot about the
3 volumetric targets in terms of matching the amount
4 of solar that comes onto a grid with actual need,
5 so both the physical need and the financial
6 benefits need to be matched. So we'll just
7 conclude with those statements around, you know,
8 the paths of solar, the pace of solar, and then
9 thinking about the physics as well as the economics
10 of it to ensure we have reliable and cost-effective
11 integration of solar as we move forward.

12 So with that, we would conclude for the
13 panel with our prepared remarks and we would
14 certainly be happy to -- any of us to entertain
15 questions from the Commission at this point in
16 time.

17 CHAIRMAN WHITFIELD: Well, thank you
18 for all four of your presentations and at this time
19 we'll now take Commissioner questions.

20 Mr. Elam.

21 COMMISSIONER ELAM: Good morning.

22 Mr. Freeman, you mentioned a couple of
23 examples of solar development problems in Hawaii
24 and California. I didn't know if you could -- you
25 can expound on what you talked about a little bit

1 blacking out Oahu for a couple of days or
2 California losing a thousand megawatts of solar.

3 MR. FREEMAN: Sure. You know, in Oahu,
4 the blackout didn't last for a couple days but it
5 lasted for several hours. And what happened with
6 the first example in Hawaii is they lost their
7 largest generating unit, traditional generating
8 unit, and all the solar inverters kind of saw the
9 loss of that unit. And it's kind of technical, but
10 they're looking at -- you know, inverters kind of
11 operate -- they look at frequency in voltage. And
12 if they saw a -- in this case they saw a pretty
13 significant drop in frequency, which is a critical
14 kind of reliability component.

15 And the inverters began tripping off
16 and it created kind of a -- you know, kind of a
17 cascading effect, and that tripped off all the
18 other units so the entire island blacked out. And
19 it happened twice, so... You know, they've
20 rectified the problem. You know, it's part of this
21 living and learning as you go. But that's
22 something that we're very careful about and
23 consider -- you know, take serious consideration
24 about, you know, the impacts.

25 The second example, if you're familiar

1 with Hawaii, they've had a lot of roof -- I'm still
2 talking about Hawaii. Most of their adoption has
3 been residential small rooftop facilities. So when
4 you get a lot of rooftop facilities kind of right
5 there together all being served off the same small
6 service transformer and they're all during low, low
7 periods kind of trying to push all that solar back
8 up onto the system, you're seeing voltage rises and
9 you're tripping off a lot of residential equipment,
10 air conditioning equipment, things like that. So
11 it's like trying to push a lot of water through a
12 pipe, you know, the pressure goes up as you're
13 trying to push that water through the pipe. So
14 those are the two Hawaii examples.

15 And in California, there's been a
16 pretty significant focus by NERC on what happened
17 out there, and this is tied to one of the fires out
18 in California. I can't remember the specifics, but
19 almost instantaneously they lost about a thousand
20 megawatts of solar production. And, you know, you
21 think about it, I mean, you lose that amount of
22 generation instantaneously, you know, your other
23 generators on the system have to, you know,
24 immediately ramp up to accommodate that.

25 So they -- there's no blackout there,

1 but that was just a significant challenge to kind
2 of manage that. As you go deeper and deeper with
3 your solar penetration, it just makes that
4 challenge even more significant.

5 COMMISSIONER ELAM: It was because of
6 the fires?

7 MR. FREEMAN: The fires -- there was
8 another kind of cascading example where the fires
9 were probably the root cause, but with the solar
10 that was on the system, that was part of the
11 ultimate cascading there.

12 COMMISSIONER ELAM: You talked a little
13 bit about kind of what you're talking about in your
14 previous answer, the system being able to handle
15 all the load that may come in too much at the wrong
16 spot. Can your grid be affected by solar projects
17 that aren't even in your service territory?

18 MR. FREEMAN: I think the short answer
19 is yes for a couple reasons. You know, from a
20 transmission network perspective, you know, I mean,
21 all the, you know, neighboring grids are all kind
22 of interconnected together, so too much generation
23 in one place can have an impact on each other's
24 grids.

25 And then Mr. Snider kind of referenced

1 this kind of -- I call it kind of during minimum
2 load hours in a day when the sun is really shining,
3 you know, where do you put all that additional
4 generation if you can't consume it on your own
5 system. You know, so this leads to, you know,
6 things that we're -- we're really wrestling with
7 right now is how do you curtail and pay for
8 curtailment and compensate. It's just kind of
9 another one of the many challenges that we've got
10 to face going forward.

11 COMMISSIONER ELAM: I guess it's
12 Mr. Snider. I'm looking at your Slide 16 and when
13 you were talking about PURPA placing no limits on
14 the volume of the facilities that subscribe to the
15 QF rate offering. Is this almost kind of a reverse
16 problem for hedging?

17 MR. SNIDER: Yeah, that's a good way to
18 think about it, which is if you think about buying
19 PURPA power, customers are paying for this just
20 like they would natural gas or coal. With natural
21 gas or coal, you have estimates of how much you're
22 going to burn in the future and you have a
23 procurement program that's very systematic, so
24 you're buying a little bit forward at various
25 points in time, sort of like investing in your

1 401-K every two weeks, you have a systematic way of
2 doing that.

3 With PURPA, you put out a price signal
4 that's developed through a QF rate that has no
5 limit to who may or may not subscribe to that. So,
6 you know, what you see is you have an obligation
7 under PURPA to purchase any qualifying facility
8 that goes through the proper steps that Mr. Freeman
9 spoke about.

10 But they don't have an obligation to
11 you to sell so, you know, sometimes you might not
12 get any, but then if there's a pricing out there
13 that the market likes, it can come with no
14 constraint on it. So it is sort of a reverse --
15 like you said, in the hedging, it's the reverse of
16 hedging that's being put to you instead of you
17 doing it in a systematic manner.

18 COMMISSIONER ELAM: Can the price
19 signal be flexible enough to take into account what
20 your needs are at a particular time?

21 MR. SNIDER: I think that's one of the
22 benefits of having shorter term contracts because
23 needs change across time and you do your best to
24 assess what the need is today. But one, two,
25 three, four years down the road, that need changes.

1 So if you locked up 20 years with one
2 thought of need and then five years in that was way
3 off, whether it's the need or the price of gas or
4 the price of coal, you could -- the longer the
5 term, the more you could be off. So yeah, I do
6 think you can send the right price signal if you
7 update it often and you keep the terms short.
8 Those are two ways to help mitigate that, is
9 periodic updates.

10 And that's why you see with the large
11 QF's above one megawatt or, you know, in North
12 Carolina, at least, we limit to a 5-year term and
13 we actually look at the market every -- you know,
14 every deal that we do is reflecting what the market
15 was at that point in time, whereas a standard rate,
16 because it involves a process of publishing a rate
17 and putting it in place, you don't update those
18 every month, so stay in time -- you know, in place
19 sometimes, you know, two years at a time or longer,
20 and so they're a little bit more difficult to
21 update in realtime when you have a published
22 tariff, whereas a negotiated rate can -- if gas
23 goes way up, you'll raise the rate you're willing
24 to pay; as it goes way down, you'll lower it, you
25 keep the term shorter, and it helps to better match

1 all that. So I do think there are strategies to
2 help ameliorate that.

3 COMMISSIONER ELAM: Okay. With that 5
4 megawatt standard, is it fair to say that as time
5 goes by, the time it takes to build a 5 megawatt
6 facility drops?

7 MR. SNIDER: I think that the
8 experience -- and I'll allow Mr. Freeman to weigh
9 in if I miss this, but part of it is time to build
10 the facility. But as you get such high volumes of
11 this as we saw in the opening slides, the time to
12 study each one of those very carefully grows.

13 So if we have 50 projects in the queue,
14 we can do that more rapidly than 500, than 5,000.
15 So the time to interconnect them grows while the
16 time to actually construct may actually be going
17 down. I don't know, Gary, if you have any other
18 comments on that.

19 MR. FREEMAN: Well, I'll just give you
20 kind of what I would call a poster child example.
21 There's a 5 megawatt project that -- I mean,
22 generally what we're seeing is, you know, a 5
23 megawatt-sized project, they can construct and
24 build that now in like two months. I mean, they've
25 got that process down pretty refined.

1 But the upgrades that were required on
2 the distribution system, the developer paid Duke
3 2.3 million dollars to make the upgrades and it
4 took us nine months to complete the upgrades. We
5 had a -- normally you have like a 3 to 4-man crew
6 kind of doing the construction work. We had a
7 15-person crew doing that work to bring on that 5
8 megawatt project.

9 So that's one of the things we're
10 hoping to solve with this competitor procurement
11 process, is identify a location on the grid where
12 you can minimize upgrades. I mean, we still have a
13 lot of projects where the upgrades required on the
14 system are zero, then in other cases where you get
15 this PURPA kind of rate distortion, you get -- you
16 know, you can -- these developers can afford to pay
17 significant upgrade costs.

18 So in this particular example, this was
19 a PURPA rate that was like 80-some dollars megawatt
20 hour, where you're seeing today, you know, solar
21 projects, you're reading in the news I think quite
22 regularly where solar costs have come down to under
23 40 hours of megawatt hours. So that's that
24 distortion and the impact that it has even on the
25 studying and the cost and the level of effort it

1 takes us to connect the project on the grid.

2 COMMISSIONER ELAM: And one last thing
3 occurs is obviously South Carolina is a vertically
4 integrated state. Are these problems any different
5 in retail competitive states than vertically
6 integrated states?

7 MR. FREEMAN: For me it depends on what
8 problem you're referring to. Can you identify the
9 number?

10 COMMISSIONER ELAM: Transmission grid
11 management, just some of the problems of too big,
12 too out in the middle of nowhere.

13 MR. FREEMAN: Sure. I'll answer this
14 way. I mean, the answer -- the short answer is
15 yes. I mean, all retailers are kind of facing some
16 of the same types of issues. You know, too big on
17 too small a part, you know, too weak a part of the
18 grid requires upgrades, you know, to accommodate
19 the project.

20 You know, it's not maybe that much
21 different than I think about like, you know, the
22 transportation highway infrastructure. You know,
23 if you put a large shopping mall out in the middle
24 of nowhere, I mean, you've got to build
25 infrastructure to accommodate, you know, the cars

1 and traffic on there. So it's very similar so
2 we're seeing it across the country, yes.

3 COMMISSIONER ELAM: Okay. That's all I
4 have, Mr. Chairman. Thank you.

5 CHAIRMAN WHITFIELD: Thank you,
6 Commissioner Elam.

7 Other Commissioner questions?

8 Mr. Randall.

9 COMMISSIONER RANDALL: Thank you, Mr.
10 Chairman.

11 Thank you, gentlemen.

12 I just had a couple of questions.
13 Going back to where you're talking about the
14 projects needing -- you know, needing upgrading to
15 the transmission system where you are, does that
16 affect -- say you got a large project. Does that
17 affect where it is in the queue for how you -- I
18 mean, do you really -- I'm trying to make this
19 question make sense. A project that say is in a
20 rural area that may not be close to -- may need
21 transmission upgrades, does that -- if there's
22 another project that's closer to these less
23 transmission upgrades, does that put it higher in
24 your queue to get accomplished, I guess?

25 MR. FREEMAN: I mean, today under the

1 South Carolina interconnection standards and really
2 even under the FERC interconnection standards, I
3 mean, we're obligated to study and develop
4 solutions for each project kind of sequentially.
5 So that first project is just kind of first in,
6 first study, you know, first solution.

7 I mean, a lot of states, especially the
8 big RTO's and even some states have moved to more
9 of a cluster study kind of grouping study concept
10 where you study all the projects as one group and
11 then allocate those upgrade costs across a number
12 of projects. That's something that we are
13 considering.

14 I think, you know, the solar developers
15 a couple of weeks ago when they were here kind of
16 alluded -- kind of indirectly alluded to some
17 conversations that we've even had with them about
18 moving to that kind of process. I don't know if
19 that answers your question.

20 COMMISSIONER RANDALL: Yeah. Yeah.
21 One other question. Going back to your -- the
22 5-year term -- rate term for QF's in North
23 Carolina, how does that -- you know, an old -- I
24 know in talking about building capacity, you always
25 having to plan -- we always hear you need to plan

1 20 years out. How does this having a 5-year term
2 affect financing for the developer?

3 MR. SNIDER: You know, what we've seen
4 in other jurisdictions here as well is you're
5 giving -- a 5-year term doesn't mean you're only
6 going to take service for 5 years, right? You have
7 an obligation under PURPA to accept service under
8 term -- financeable terms and conditions beyond
9 that 5-year period so you can have that ever green.

10 All the 5-year term does is that we're
11 not willing to fix the price and have consumers
12 wear the risk of the price beyond Year 5. So, you
13 know, in Year 6, if gas has gone up 2 dollars in
14 MMBTU and that affects the avoided cost, you'll
15 make more money in Year 6. Or if it's gone down 2
16 dollars in MMBTU, which then affects your avoided
17 provided cost price, you'll make less but it better
18 matches, but you still have that obligation to
19 purchase so they have the guarantee to know that
20 they'll be -- being purchased from, it's just the
21 fixed price nature of it does not have to extend
22 beyond the 5-year term.

23 COMMISSIONER RANDALL: Okay. Thank
24 you. That answers my question.

25 Thank you, Mr. Chairman.

1 CHAIRMAN WHITFIELD: Thank you,
2 Commissioner Randall.

3 Commissioner Hamilton.

4 COMMISSIONER HAMILTON: Thank you,
5 gentlemen, for being here today.

6 I think we've heard the opposite of
7 what we heard a couple of weeks ago about the same
8 thing, the problem that the solar people see and
9 this power problem today that you see. And I know
10 getting 236 off the ground, we had the alliance or
11 the working group that worked together from
12 industry and from the solar people along with the
13 mediation ability that ORS has. Do you think it
14 would be better if this would be considered as
15 going forward to try to work these problems out
16 better than it is to fight it out on the house
17 floor or the senate floor? That's kind of where we
18 are, isn't it?

19 MR. ELLERBE: Yes, Mr. Commissioner,
20 that is what we think, that there is a way that it
21 could be worked out if we could do it -- follow the
22 method or the approach that was taken on Act 236,
23 yes, sir. And that was, as Brett talked about, the
24 North Carolina experience, a lot of problems, a lot
25 of litigation, a lot of contested litigation, and

1 then a legislative process that ended up with --
2 and I'll let him correct me, but with support by a
3 broad range of stakeholders. So that's -- yes, we
4 agree.

5 COMMISSIONER HAMILTON: I know I've
6 seen where the solar farms are coming in that we're
7 hearing about. I mean, I know where they are and I
8 know that the transmission is not there at this
9 time, so it does look like a way could be worked
10 out where we could move forward much like other
11 states have and have a -- have you folks all get
12 together in one room and get Miss Pittman or some
13 of her folks to help you get to the end of the
14 problem. I don't know how to get you there. I
15 talked to the other group about it.

16 MR. ELLERBE: It may be a process
17 getting there.

18 MR. FREEMAN: I just want to reinforce
19 that we are hosting this first technical
20 stakeholder group in two weeks and it's designed to
21 do exactly that. The solar developers had invited
22 some real strong kind of industry technical
23 engineers to participate in that and we have as
24 well. And we do think that's a good approach going
25 forward to be more transparent, more collaborative,

1 and design solutions that, you know, are more
2 win/win.

3 And we've seen it already with some of
4 our -- some of the technical standards that we have
5 kind of deployed in the last two years. And, you
6 know, we all bring very valuable kind of
7 perspectives together, which does reinforce what I
8 think you're promoting.

9 COMMISSIONER HAMILTON: I thank you.
10 Well, hopefully it will work. Appreciate you being
11 here.

12 CHAIRMAN WHITFIELD: Thank you,
13 Commissioner Hamilton.

14 Commissioner Howard.

15 COMMISSIONER HOWARD: Good afternoon,
16 gentlemen. Thank you for your presentation.

17 It was stated -- and I'm not going to
18 call any names, but whoever feels more qualified to
19 answer the question.

20 There was some talk about updating QF,
21 avoiding cost methodology. What changes would
22 you -- how would you update or what changes would
23 you make in the current methodology to do it?

24 MR. SNIDER: That's a very good
25 question. There's both methodology and then

1 there's inputs. So again, from the pure
2 indifference principle, it's what are we actually
3 avoiding by procuring power instead of generating
4 off of the grid. And so as coal prices change, gas
5 prices change, new technologies go into your system
6 that avoided cost changes. So that's one, you
7 know, just changing the inputs on a regular basis
8 to reflect the current market conditions.

9 The other has to do with some of the
10 issues we just spoke about in terms of how the --
11 right now, for example, rates are not -- these are
12 not solar rates. These are generic QF rates that
13 look at what's the value of any QF in a very
14 generic basis. That may not be a good
15 representation of what solar provides. So when you
16 look at average energy costs, that's different than
17 what solar energy provides.

18 When you look at capacity value, for
19 example, a generic methodology would look at maybe
20 having a resource around the clock that would
21 ascribe capacity value, meaning -- when we say
22 capacity value, what generation are we not going to
23 build if we get solar put onto the grid.

24 Well, in our -- you know, today we
25 actually pay capacity payments under the current

1 rate design even though we really aren't avoiding
2 any capacity with solar coming onto the grid. Our
3 peaks are in the mornings in the winter when it's
4 very cold and we have to be able to serve those
5 reliably. We have no solar output at that point in
6 time, but we have a rate design in place today that
7 still compensates for avoiding capacity.

8 So I think those are the types of
9 issues that need to be addressed going forward in
10 addition to a host of others to look at to say, am
11 I truly matching this indifference principle, is
12 the customer truly being held harmless by paying a
13 price for solar energy and capacity, and is that
14 really the value that's being avoided from the
15 utility.

16 And making sure that indifference
17 principle is adhered to requires both these inputs
18 to be updated as well as the methodology, and so we
19 think that's an important distinction we need to
20 make going forward.

21 COMMISSIONER HOWARD: You used a term
22 PURPA solar. What is nonPURPA solar?

23 MR. BREITSCHWERDT: Sure. Well, PURPA
24 provides that a solar facility can register with
25 the Federal Energy Regulatory Commission as a

1 qualifying facility. And when they do that, they
2 have the rights to avoid cost rate and the rights
3 to sell a utility as a QF.

4 And so nonPURPA solar would be a
5 generating facility that's selling into the
6 wholesale market or a small facility that's behind
7 the meter that's on a customer's rooftop. That's
8 not selling wholesale to the regulating utility
9 that then resells that power to its customers.

10 COMMISSIONER HOWARD: It really is a
11 small factor in the overall picture?

12 MR. BREITSCHWERDT: The nonPURPA solar?

13 COMMISSIONER HOWARD: Yes.

14 MR. BREITSCHWERDT: In the southeast in
15 regulated jurisdictions, I think that's a fair
16 characterization, yes, sir.

17 COMMISSIONER HOWARD: I understand the
18 word, but define to me in the context that you
19 used, discussed too big and wrong location. What
20 does that mean to you?

21 MR. FREEMAN: I'm trying to think of an
22 analogy. I want to go back to my transportation
23 analogy. You know, if you've got maybe a Walmart
24 or a shopping center down a dirt road or something
25 like that, you know, that's too big to be

1 accommodated by that dirt road, if that's a good
2 example.

3 So that's what I mean by just too big
4 for the location that it's being proposed in to be
5 accommodated by the grid or, you know, the size of
6 the grid at that location, which in order to solve
7 for that we've got to make significant upgrades to
8 the circuit or the system to accommodate.

9 COMMISSIONER HOWARD: Is that the rate
10 base -- I mean the rate pay for a situation like a
11 Walmart was placed in a bad location, so to speak,
12 would that be the rate pay as --

13 MR. FREEMAN: No. I mean, generally
14 how -- maybe our legal support can help with this.
15 I mean, generally how I think, you know, this
16 Commission, you know, the North Carolina Commission
17 and others from a PURPA perspective, the costs are
18 borne by the cost causer is kind of how I think
19 about it.

20 So under a PURPA rate, if that
21 particular facility at that particular location is
22 requiring grid upgrades, that developer of that
23 facility pays those upgrades and those costs are
24 not put into rate base.

25 COMMISSIONER HOWARD: Okay. You

1 mentioned interconnection taking much longer with
2 more people. Why is that? Solar interconnection.
3 Why would it take longer and utilize more people?

4 MR. FREEMAN: I'm not following you
5 with the --

6 COMMISSIONER HOWARD: There was a
7 statement made about backlog and this type of
8 stuff, but it takes longer, I think you said nine
9 months, to connect the solar interconnection with
10 more people. Why is that?

11 MR. FREEMAN: Okay. Well, that was
12 just an example of a particular facility that
13 was -- I'll call it, to use your analogy, located
14 in what I would call the wrong location. We had to
15 upgrade 8 miles of distribution circuit to
16 accommodate that project in the location that it
17 was proposed.

18 In order to try and speed up the
19 upgrade work that Duke needed to do -- I mean, we
20 brought in extra crews to try and, you know,
21 complete that project as quick as we could. So, in
22 other words, that kind of -- I'll call it that
23 disconnect where the developer can complete their
24 construction of their 5 megawatt project in 2
25 months.

1 And for us, we struggled for 9 months
2 to really bring that facility on line where, you
3 know, in another example if that facility then
4 located in an area where there were no upgrade
5 costs, I mean, our work would only take us a couple
6 days. You know, so lining facilities up in
7 locations that are kind of what I would call maybe
8 win/win, you know, for both the developer and the
9 utility is what we're promoting.

10 COMMISSIONER HOWARD: In your slide on
11 Olanta, the map type slide where you had the
12 substation five miles away?

13 MR. FREEMAN: Yes, sir.

14 COMMISSIONER HOWARD: Who would pay for
15 that? Would the developer pay to have that
16 substation -- I mean for that solar facility to
17 connect to your substation?

18 MR. FREEMAN: Yes, sir, they would. I
19 think you're referring to the five projects that
20 were kind of in the upper left-hand corner.

21 COMMISSIONER HOWARD: Right.

22 MR. FREEMAN: Yeah. I mean, 50
23 megawatts, if you think about that, I mean, that's
24 way, way, way more generation than we could connect
25 to the distribution system. So my point was the

1 only feasible way to connect would be to build a
2 transmission line over to our existing transmission
3 line. And you're right, the developer would be
4 responsible for paying that cost, obtaining that
5 right-of-way to accommodate that upgrade.

6 COMMISSIONER HOWARD: Thank you very
7 much, and I enjoyed your presentation.

8 CHAIRMAN WHITFIELD: Thank you,
9 Commissioner Howard.

10 Commissioner Fleming.

11 COMMISSIONER FLEMING: Thank you. This
12 has been very interesting. A lot of information
13 you've given us to deal with.

14 I want to go back to the stakeholder
15 question that Commissioner Hamilton was asking you
16 about. Not only was it used as you know for Act
17 236, but for the clean -- proposed clean power plan
18 and I think even the energy plan that is out in
19 other ways. So that -- that process has been
20 established as a successful way of dealing with
21 these things.

22 I think it's important that you all are
23 doing an interconnection session with the solar
24 people, but to get so many of these answers --
25 answers to so many of these issues, it seems like

1 you need a neutral party to be pulling the
2 stakeholders together and keeping everybody in the
3 room and on track. And I understand that certainly
4 was needed with that 236.

5 So since it's been established already,
6 how can that be brought forward? I mean, this is a
7 really important issue for clean power, it's a
8 really important issue for reliability, it's a big
9 economic issue, so it's got a huge impact. So how
10 can we use the process that's already established?
11 What is the best way to bring it together? What is
12 the group to do it?

13 MR. ELLERBE: Well, Commissioner, I
14 think that there was, say, a year or 18 months ago,
15 there was an expectation of sort of the energy
16 policy planning was going to continue. There were
17 some efforts in that direction. I think the
18 project which is outside the scope of this ex parte
19 briefing that you all are extremely familiar with
20 that is dominating the political discussion on
21 energy matters, I think that's probably
22 short-circuited those efforts.

23 Everybody is focused on other things
24 right now or a lot of the players in the utility
25 side are focused on that and the ORS certainly is,

1 and so it's probably -- the process that you're
2 describing to some degree is a victim of that --
3 another victim of that situation.

4 COMMISSIONER FLEMING: But it's not
5 stopping the legislation going forward concerning
6 solar and with changes that really need to be
7 resolved it sounds like to me working together
8 rather than one against the other.

9 MR. ELLERBE: Well, we agree with that
10 and what -- our preference would have been a --
11 some sort of collaborative process in advance of
12 those bills being introduced, which didn't take
13 place. The bills were introduced without
14 collaboration among the shareholders.

15 COMMISSIONER FLEMING: So I guess --
16 well, so it's just a process that that does seem to
17 be need -- needs some focus since it has resulted
18 in some good results in the past. But you also
19 said several times, well, that's -- they're looking
20 at doing something that you have the authority to
21 do and you don't need to kind of double up on
22 something.

23 So I guess there is another issue that
24 I'm thinking about because it's come about -- we've
25 talked about it internally that education of the

1 public, it sounds like education of the elected
2 officials. And that's a real big issue as to how
3 to just educate the public about utilities and how
4 they work, how regulation works.

5 And as I said, it sounds like it needs
6 to be done with elected officials as well. And
7 have you all discussed any of those things? Have
8 you -- I know North Carolina has worked through
9 some issues. I guess where should the impetus come
10 from? Should we be doing more?

11 MR. ELLERBE: Well, one thing that is
12 sort of implicit in my presentation to you is we
13 think these issues are exceedingly complicated and
14 they're interconnected. And something that might
15 look good on the surface has repercussions. As you
16 get -- as Glen was talking about, you get more and
17 more solar, it becomes less valuable.

18 The reason that we have a Public
19 Service Commission is to get a group to delegate
20 the consideration of those issues and the
21 resolution of those issues. You all develop
22 expertise, you bring expertise to the Commission,
23 you develop expertise as your own Commission, you
24 have these ex parte briefings.

25 That's the role of the Commission, is

1 to try to resolve these issues that are difficult
2 for lay people to get their hands around and
3 difficult for legislators. And so that's -- I'm
4 not saying that you all have an obligation to
5 educate the public about it. I hope the public is
6 paying more attention now.

7 But I think that the -- your role is to
8 be the experts and to develop the expertise and to
9 have the hearings and hear from both sides and then
10 apply rules and rule on the issues. And so that's
11 what you all are here for, is to deal with these
12 complex issues.

13 COMMISSIONER FLEMING: Right. Well, I
14 understand that. I'm just trying to see how we can
15 better educate the public, not the Public Service
16 Commission educating them, but having an entity
17 that can move forward on that front.

18 But I -- well, there are a couple of
19 questions. One I wanted to get back, and I think
20 Commissioner Howard was talking about it, are some
21 of these issues with citing some of the events that
22 took place like in the Campbell's Soup factory.

23 At what point -- I mean, now I believe
24 you said that you are using -- you're inspecting
25 before energizing. Had you done that before or

1 did -- was this something that you came upon after
2 an event occurred that required a little bit more
3 detail?

4 MR. FREEMAN: Sure. We had not been
5 doing it before. And it was actually the
6 Campbell's Soup event that when we inspected that
7 particular facility, we realized that there were
8 some construction standards that weren't followed
9 at least like we thought they should be followed.
10 We looked at the facility and there were clearly
11 some deficiencies there. So that's really what
12 triggered the inspection.

13 The other thing is that, you know, all
14 these facilities we refer to as kind of the medium
15 voltage side of these facilities. These facilities
16 are really an extension of our distribution system
17 all the way into the facility all the way up to the
18 inverter or the step-up transformer that's inside
19 the facility.

20 Anything that goes on on that part of
21 the facility has a direct impact on the
22 distribution system, so it's essentially just an
23 extension of the distribution system. So we felt
24 like it was very important that we, you know, do
25 these inspections.

1 But the other more proactive thing
2 we've done is we now ask, we've posted, and we've
3 required all these facilities to follow the same
4 construction specifications that we use to
5 construct our own facilities. And that's helping a
6 lot with that, but it was just another example of
7 what I was calling kind of a wake-up call, that
8 these facilities do have an impact, you know, on
9 the distribution system and other customers.

10 COMMISSIONER FLEMING: And there's been
11 talk along the way of needing installers to be
12 certified. Has anything moved forward on that
13 front?

14 MR. FREEMAN: I don't think so, at
15 least in South Carolina, North Carolina. I know in
16 Florida they do require, you know, a certification.
17 But that's generally been focused more on the
18 installers, the rooftop installers, who are
19 installing essentially solar on roofs.

20 You know, these larger utility scale
21 projects are generally relying either on the county
22 inspector or others to inspect the facility, but
23 yet they're not really trained or familiar with
24 these facilities. So that's why, you know, we
25 provide our own inspection and we use an outside

1 contractor, you know, registered engineers to do
2 that inspection work.

3 COMMISSIONER FLEMING: And then with
4 the -- you think the legislation in North Carolina
5 will really take care of the citing issues for QF's
6 so that you wouldn't have the same situation you
7 had in Olanta so that the citing process would be
8 more --

9 MR. BREITSCHWERDT: In part.

10 COMMISSIONER FLEMING: -- controlled, I
11 guess I'm saying.

12 MR. BREITSCHWERDT: Yes, ma'am.
13 There's two parts. One --

14 COMMISSIONER FLEMING: Or managed.

15 MR. BREITSCHWERDT: I think that's what
16 the legislation and what Duke is trying to solve
17 for in implementing the legislation. There is
18 still the opportunity for a qualified facility, a
19 solar project that goes and registers and says, I
20 want to sell to you, Duke, under either the
21 standard offer or the large negotiated contract to
22 cite wherever they want. They would be obligated
23 to pay for the upgrades to the grid to interconnect
24 them.

25 I think what the RFP process, the CPRE

1 program is trying to solve for, is for Duke to
2 identify where on its grid projects can
3 interconnect largely the transmission system,
4 whether or not they're going to be constrained and
5 can do so more cost effectively.

6 And so I think it will certainly
7 improve the situation we have now where you have a
8 lot of distributed energy projects from the
9 distribution system, but they still have the right
10 to interconnect to that distribution system, they
11 just have to pay for the upgrades to do so, but
12 that's certainly an objective of the legislation.

13 COMMISSIONER FLEMING: Okay. And also
14 I wanted to ask about the moving from
15 administrative cost to marketplace cost. Could you
16 talk a little bit more about that in a vertically
17 integrated state?

18 MR. BREITSCHWERDT: Sure. So I think
19 when I'm using market in a vertically integrated
20 state, what I'm saying is what is the -- what is
21 the market price that Duke can procure the solar
22 for. And that's derived through a competitive
23 process.

24 You issue an RFP. You say all of the
25 QF's that want to bid into this competitive process

1 can put their best bid in. They can say, I'll
2 build a 75 megawatt solar project for whatever the
3 price is and then they compete. And so that
4 determines the market price.

5 And so it's an alternative way to
6 determine what the facility's cost is that's going
7 to be ultimately avoided versus an administratively
8 established forecasted rate, which is what
9 Mr. Snider would do through his innovative resource
10 planning process to forecast out what the likely
11 cost of energy and capacity is or in that long
12 term. So this RFP process in a sense guarantees
13 you're getting the least cost solar resources
14 delivering the system.

15 COMMISSIONER FLEMING: And what does it
16 take to move to that type of cost?

17 MR. BREITSCHWERDT: In -- well --

18 COMMISSIONER FLEMING: Does it take
19 legislation I guess is what I'm asking or --

20 MR. BREITSCHWERDT: No, ma'am, I don't
21 believe it takes legislation. I think in addition
22 to offering an administratively established of what
23 costs were to exist today and which is the
24 preferable requirement what NARUC is advocating for
25 is all these regulations, but you certainly can

1 have multiple programs, one that's competitive and
2 one administratively established.

3 But I think where the company's current
4 QF administratively established framework today is
5 the longer term price forecast are sufficiently
6 risky that they are not contracting out into the
7 future. And so to meet QF's objectives of longer
8 term contracts, that could be done through a
9 competitive process that allows them to succeed in
10 delivering the least cost resource as an
11 alternative to the administratively established
12 framework.

13 COMMISSIONER FLEMING: And that would
14 be what you'd follow through like at the end of the
15 5-year that you're recommending, you would
16 recommend just the reevaluation of what the market
17 is calling for to establish the terms of?

18 MR. BREITSCHWERDT: Sure. That's
19 correct. The QF always has the right to sell at
20 the end of that 5-year term under this Mr. Snider
21 said an ever green right under PURPA to sell their
22 power to the interconnect utility. And it's just
23 how you determine that price at the end of the
24 term, whether it's administratively or through a
25 competitive process.

1 COMMISSIONER FLEMING: Okay. Thank
2 you.

3 CHAIRMAN WHITFIELD: Thank you,
4 Commissioner Fleming.

5 Commissioner Bockman, did you have
6 anything?

7 COMMISSIONER BOCKMAN: At the risk of
8 prolonging this, just a couple of simple questions.
9 Would it be the company's preference that something
10 like House Bill 589 in North Carolina be adopted
11 here?

12 MR. SNIDER: Yeah, I think the
13 answer -- the short answer is yes. I think what
14 we've tried to illustrate today is that from both a
15 case and economic benefit for customers from a risk
16 perspective that competitively procured as
17 Mr. Breitschwerdt just mentioned, ensures a lower
18 cost for consumers. It gives you control on
19 volume. It allows you to assess customer need in
20 market conditions at that time.

21 And as I mentioned in my presentation,
22 if you -- if we continue to see declining costs of
23 solar, your hope is that these future competitive
24 procurements will result in ever reduced cost for
25 solar production across time with improvements in

1 technology as opposed to an administratively
2 established rate that we just spoke about, so both
3 are viable.

4 COMMISSIONER BOCKMAN: That would be
5 perhaps a starting point for your collaborative
6 discussions and whatever may end up here
7 legislatively?

8 MR. SNIDER: I believe so, yes.

9 COMMISSIONER BOCKMAN:
10 Mr. Breitschwerdt, what's the role of the North
11 Carolina Utilities Commission under H 589?

12 MR. BREITSCHWERDT: They are
13 responsible for implementing the various programs
14 that were established similar to you all's role
15 under Act 236 of implementing the programs that
16 were approved in that legislative package. So
17 there was a rulemaking for the competitive
18 procurement program. There is a recent order
19 issued to approve the guidelines. And so they are
20 essentially setting the framework that then the
21 Duke utilities will go forward and administer the
22 RFP. There's actually an independent
23 administrator, so a third party who has been
24 selected by the Commission to oversee the RFP
25 process where the -- this renewable generation will

1 be procured.

2 COMMISSIONER BOCKMAN: Thank you,
3 gentlemen. And once again, I would echo the
4 remarks of the other Commissioners to appreciate
5 your appearance here today for us.

6 CHAIRMAN WHITFIELD: Thank you,
7 Commissioner Bockman.

8 I believe -- I think that does it for
9 Commissioner questions. I have a lot of questions
10 that you had sparked my interest in. In the sake
11 of time and the fact that a few of them have been
12 asked, I'm going to try to whittle this down to
13 just a few.

14 And, Mr. Freeman, they're going to
15 mainly be directed at you. And to save time,
16 Frank, you'll get one from -- Mr. Ellerbe, excuse
17 me, you'll get one too at the end right quick.

18 But, Mr. Freeman, specifically I'm
19 going to dive in the part of your presentation on
20 specifically the Campbell's Soup situation. We're
21 talking about Campbell's Soup in the DEP, Duke
22 Energy Progress territory.

23 MR. FREEMAN: Right.

24 CHAIRMAN WHITFIELD: First of all, how
25 many megawatts was that project?

1 MR. FREEMAN: That was a 20 megawatt
2 facility.

3 CHAIRMAN WHITFIELD: Okay. When you --
4 until you got into your I guess Pages 8 and 9, I
5 was thinking some of the issue might have been
6 the -- until I realized you were talking about a
7 megawatt project that long, I was thinking that
8 some of the intermittency was harming the
9 industrial load of a customer the size of
10 Campbell's Soup, but now I clearly see what you're
11 talking about and citing it as being too big and in
12 the wrong place. I'm not going to go down that
13 path because Commissioner Howard already has.

14 But with it being 20 megawatt, I do
15 have another specific question. You talk about 11
16 million dollars in grid upgrades. And I think
17 you've kind of generally answered a question he had
18 about upgrades, but specifically in this matter who
19 paid the 11 million dollars in upgrades?

20 MR. FREEMAN: That's a good question.
21 You know, those upgrades are just being completed
22 now and, you know, for now, until we have a rate
23 case, and I'm not -- I mean, I'm not a rate expert
24 at all, but --

25 CHAIRMAN WHITFIELD: And we're not in a

1 rate case either, so go ahead.

2 MR. FREEMAN: Right. So Duke is not --
3 I mean, Duke is paying for those upgrades. In
4 hindsight, if we had the appropriate study
5 methodology in place, we would have recognized
6 those upgrades ahead of time and we would have been
7 asking that developer to pay those upgrade costs.
8 So that's kind of what I would call the unintended
9 consequence of not doing a thorough and adequate
10 job up front.

11 CHAIRMAN WHITFIELD: As you told
12 Commissioner Fleming, you didn't inspect prior --
13 you did not inspect prior is what you told --

14 MR. FREEMAN: Well, there's two
15 components. There's the study process that you do
16 through modeling before you even begin any
17 construction, before you even approve the
18 interconnection. So that was what we recognized in
19 that case, the study process did not identify the
20 impacts on the grid. The inspection process is
21 after the facility has been completed and you're
22 looking at construction, you know, quality, and
23 following, you know, the safety, you know,
24 requirements and actually building the facility as
25 it was proposed to us.

1 CHAIRMAN WHITFIELD: Okay. I do have
2 one or two more for you real quickly, but I do see
3 Miss Dulin has risen to the podium, so --

4 MS. DULIN: Mr. Chairman, if you don't
5 mind, could you ask Mr. Freeman your question about
6 the location of the facility?

7 CHAIRMAN WHITFIELD: I asked him if he
8 was referring to the Campbell's Soup facility in
9 Sumter, South Carolina, is that right?

10 MR. FREEMAN: Maybe a clarification. I
11 referenced two different facilities. So the first
12 question was tied to Campbell's Soup, and that was
13 a 20 megawatt facility, but when you asked --

14 MR. ELLERBE: Where is that facility?

15 MR. FREEMAN: It's in Maxton.

16 MR. ELLERBE: It's not the one in
17 Sumter.

18 MR. FREEMAN: Oh, I'm sorry.

19 CHAIRMAN WHITFIELD: I saw the Olanta.
20 I'll get to that in a minute. So we're talking in
21 North Carolina now?

22 MR. FREEMAN: Yes, sir.

23 CHAIRMAN WHITFIELD: Okay.

24 MR. FREEMAN: I'm sorry. Maxton, North
25 Carolina.

1 CHAIRMAN WHITFIELD: Thank you.

2 MS. DULIN: Thank you for the
3 clarification.

4 CHAIRMAN WHITFIELD: And thank you for
5 bringing that to our attention. So we're talking
6 Maxton, North Carolina, just across the line in
7 North Carolina.

8 To move forward. And when I saw the
9 Olanta substation, I'm still thinking that below
10 the Sumter Pee Dee area over there, and I want to
11 move into that in just a minute on the Olanta
12 substation. And I'm not going to go where
13 Commissioner Howard went on the transmission lines,
14 but back to the -- get away from the transmission
15 lines a minute. Let's get into the substation.

16 I noticed on your map how many projects
17 you have as you said in the 5-mile radius of this
18 substation. And the one that's probably closest in
19 proximity was a 15 megawatt project. You said that
20 one was holding up -- that that was first and kind
21 of holding up the other things from going forward.

22 My question again to you is back to a
23 cost standard. How much would it cost to upgrade
24 that Olanta substation to move forward with these
25 projects? In a sense you have all this going on in

1 a rural area that can't handle it. How much would
2 the upgrades cost for that substation or do you
3 know?

4 MR. FREEMAN: Well, let me kind of
5 answer it a couple ways. The 15 megawatt project
6 by itself, being the first project to connect up to
7 that substation might not -- might not cost
8 anything to upgrade the substation. The challenge
9 with that project is the distribution lines
10 themselves and the circuit can't accommodate the 15
11 megawatts.

12 So at 15 megawatts, that facility, we
13 need to identify a different route to get that
14 power back to the substation, okay? So that --
15 hopefully that answered the question.

16 CHAIRMAN WHITFIELD: That's where you
17 get into the 5 mile transmission lines that
18 Commissioner Howard was asking about?

19 MR. FREEMAN: Well, that was the
20 example of -- I was trying to look at the five
21 projects that are in the upper left-hand corner.

22 CHAIRMAN WHITFIELD: Oh. Correct.

23 MR. FREEMAN: The distribution system
24 cannot accommodate the 50 megawatts no matter what
25 size wire, what kind of upgrades you make there.

1 But your other question would be
2 there's 146 megawatts of projects in total there.
3 The substation itself, we refer to it as a 15, 20,
4 25 MVA transformer. That transformer is only about
5 one-eighth the size necessary to accommodate those
6 projects.

7 CHAIRMAN WHITFIELD: Then you need the
8 step-up transformer?

9 MR. FREEMAN: Well, there isn't a -- we
10 don't have a distribution substation that's even
11 close to that size. I mean, you just -- I mean,
12 the infrastructure work there if I'm going to take
13 a guess to upgrade the substation to accommodate,
14 you know, that amount of generation, I'm just
15 pulling a number out, but just to give you a sense
16 would be tens of millions of dollars.

17 And then you've got the transmission,
18 you know, grid itself that needs to be upgraded. I
19 mean, you could -- I'm just guessing. I mean, you
20 could spend 50 or a hundred million dollars trying
21 to upgrade the system enough to accommodate the 146
22 megawatts in that particular location. That's just
23 a uninformed wild guess to be clear. But the point
24 is --

25 CHAIRMAN WHITFIELD: Say that number

1 again.

2 MR. FREEMAN: I said anywhere from, you
3 know, 50 to a hundred million dollars. I mean,
4 that's my point about there's a point where, you
5 know, the size of the project and the location of
6 the project and the upgrades that are required to
7 accommodate that project just make the project, you
8 know, kind of uneconomical to move forward.

9 And that does tie in to what we're
10 trying to do with House Bill 589 in the competitive
11 procurement process, is identify location where you
12 minimize those upgrade costs going forward.

13 CHAIRMAN WHITFIELD: And I see where
14 you were referring to because I was looking at
15 another line that you -- the line you were
16 referring to is at the top left corner, I believe,
17 of that Page 10 is what you were referring to.

18 MR. FREEMAN: Yeah, the pink line is
19 the distribution circuit up in that area. And then
20 the blue line that kind of comes down through the
21 middle to the substation, that's the transmission
22 line.

23 CHAIRMAN WHITFIELD: Okay. The blue
24 with the kind of railroad-looking --

25 MR. FREEMAN: Right.

1 CHAIRMAN WHITFIELD: Right. Got it.
2 Well, I do have some other questions, but this has
3 been really informative. I'm going to close with a
4 question to Mr. Ellerbe talking about the -- you
5 talked about the company's position, of course, in
6 this. And as Commissioner Hamilton said, we're
7 hearing kind of opposite today.

8 But as you know, we're -- even with all
9 the collaborative efforts of Act 236, you know some
10 of the discussion has been around South Carolina
11 hitting the caps, hitting the limits on those.
12 What is the company's position if you're able to
13 say at this time on how to deal with hitting those
14 ceilings and hitting those limits placed by 236?

15 MR. SNIDER: Okay. I'm never shy to
16 speak since everyone's looking at each other. I
17 would say, you know, just more generally pace is
18 very important as we spoke about in all of this.
19 And so what you're really talking about is changing
20 the pace and I think it needs careful
21 consideration.

22 I'm certainly not the person to say
23 what our official position is on that very specific
24 issue, but it does just highlight again, you know,
25 236 had caps for a specific reason which it

1 recognized that there is a pacing issue that needs
2 to be adhered to. And so I think it will take
3 careful consideration, and I don't have the
4 company's official position on that, on that issue.

5 MR. FREEMAN: I think the other point
6 about the caps is, you know, the deeper the
7 penetration goes, the more risk you've got cost
8 impacts to other customers. So from a net metering
9 cap perspective, from a rebate cap perspective. I
10 mean, those rebates, you know, pays those rebates,
11 but those costs of those rebates are recovered
12 through, you know, Act 236, so I think it's kind of
13 a -- I'll call it maybe a cost control kind of
14 mechanism, if that makes sense.

15 CHAIRMAN WHITFIELD: Well, thank you.
16 I don't have anything further and I don't believe
17 any of the other Commissioners do.

18 Anything further from ORS,
19 Miss Pittman?

20 MS. PITTMAN: Nothing from ORS.

21 CHAIRMAN WHITFIELD: Does the company
22 have anything else, Miss Dulin?

23 MS. DULIN: Nothing further. Thank you
24 for your time very much.

25 CHAIRMAN WHITFIELD: Well, if not,

1 thank you all for your presentation. Very
2 informative. We appreciate you bringing this to
3 our attention and this allowable ex parte briefing
4 is adjourned.

5 (WHEREUPON, the proceedings concluded
6 at 12:49 PM.)

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1 CERTIFICATE OF REPORTER

2 I, Terri L. Brusseau, Registered
3 Professional Reporter and Notary Public for the
4 State of South Carolina at Large, do hereby certify
5 that the foregoing transcript is a true, accurate,
6 and complete record.

7 I further certify that I am neither related
8 to nor counsel for any party to the cause pending
9 or interested in the events thereof.

10 Witness my hand, I have hereunto affixed my
11 official seal this 1st day of April, 2018 at
12 Charleston, Charleston County, South Carolina.

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Original Signed

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Terri L. Brusseau, RPR, CRR
My Commission expires
April 5, 2026.

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